Watkins Meadow
Stormwater Retrofit

Quick Facts

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Watershed:	Great Seneca Creek
Sub-Watershed:	Middle Great Seneca
Completion Year:	2019
Impervious Area	14.2 acres
Project Cost:	$1,180,000
Maryland DNR Trust Fund Grant Award:	$450,000

Pre-Restoration Conditions

Most of the land development in Great Seneca Watershed predates current stormwater management requirements. Uncontrolled stormwater runoff creates high flows during storms that can cause erosion and carry pollutants to nearby streams. Watkins Meadow stormwater pond, originally constructed in 1983, captures runoff from 56 acres and provided some stormwater volume control, but did not meet current Maryland Department of the Environment (MDE) stormwater management requirements for safety and performance.

Design Approach

The Watkins Meadow pond was converted to a wet pond, meaning it holds water permanently. As part of the retrofit the following improvements were made; 1) the pond was re-graded and deepened to accommodate a wet pool, 2) the dam embankment was upgraded with a clay liner to make it impervious to water seepage and 3) the original riser structure was replaced with a more robust concrete riser.

Additionally, 25 shrubs, 33 trees were planted. In Spring 2020, 1,002 aquatic plants will be planted around the pond edge to provide habitat for aquatic life and to enhance the overall ecology of the pond.
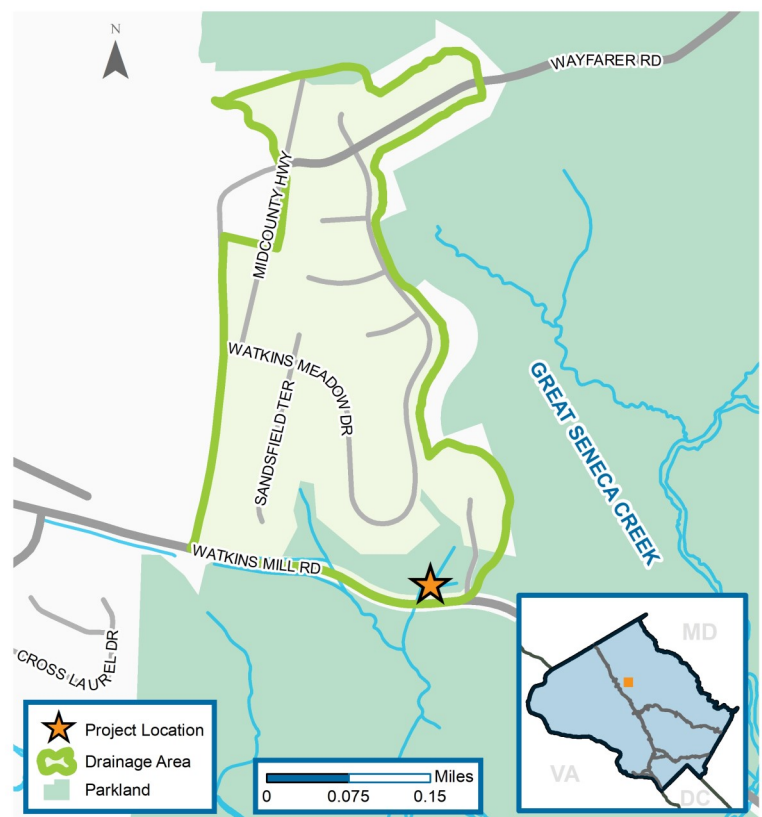
Water Quality Protection

DEP restoration projects help reduce sediment and nutrient pollution entering local waterways and the Chesapeake Bay.

Nitrogen
Reduced
213
lbs/yr

Phosphorus
Reduced
16
lbs/yr

Sediment
Reduced
9.6
tons/yr

The Watkins Meadow stormwater pond, originally designed as a dry pond, held water only after storm events and was released through the riser shown in the photo.

The new wet pond has a permanent pool with a max depth of 3.4 feet which will increase up to 6.4 feet during storm events and slowly return to permanent pool depth after storms. Aquatic vegetation was planted around the pond perimeter in Spring 2020.

Contact Us:
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DEPARTMENT OF ENVIRONMENTAL PROTECTION

MONTGOMERY COUNTY 1776 MARYLAND

MARYLAND DEPARTMENT OF NATURAL RESOURCES